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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,744	12/02/2003	Steven R. Lange	5589-05201 P1067	3066
35617	7590	10/20/2005		
DAFFER MCDANEIL LLP P.O. BOX 684908 AUSTIN, TX 78768			EXAMINER STAFIRA, MICHAEL PATRICK	
			ART UNIT 2877	PAPER NUMBER

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/725,744

Applicant(s)

LANGE, STEVEN R.

Examiner

Michael P. Stafira

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/13/2004, 4/23/04

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

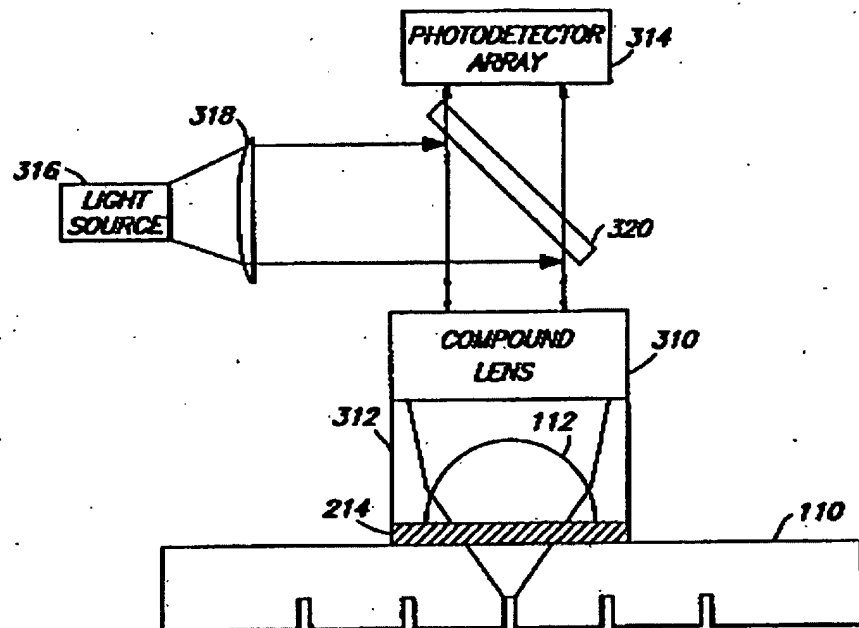
2. Claims 1-8, 11, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by

Batchelder et al. ('648).

**Claim 1**

Batchelder et al. ('648) discloses an optical component (Fig. 3, Ref. 312) configured to project light onto a specimen (Fig. 3, Ref. 110) during inspection or review of the specimen, wherein the specimen is a wafer (Col. 6, lines 31-32); and a liquid (Fig. 3, Ref. 214) disposed between the optical component (Fig. 3, Ref. 312) and the specimen (Fig. 3, Ref. 110) during the inspection or the review, wherein the liquid (Fig. 3, Ref. 214) is in contact with a surface (Fig. 3, Ref. 110) of the optical component (Fig. 3, Ref. 312) and a surface of the specimen (Fig. 3, Ref. 110), and wherein the liquid (Fig. 3, Ref. 214) does not permanently alter properties of the optical component (Fig. 3, Ref. 312) or properties of the specimen (Fig. 3, Ref. 110; Col. 6, lines 10-26).

**FIG. 3**



**Claim 2**

Batchelder et al. ('648) discloses the presence of the liquid between the optical component and the specimen increases resolution of the inspection or review system (Col. 5, lines 40-43).

**Claim 3**

Batchelder et al. ('648) further discloses the liquid has an index of refraction that is approximately equal to an index of refraction of the optical component (Col. 5, lines 49-52).

**Claim 4**

Batchelder et al. ('648) further discloses the liquid has an index of refraction that is different than an index of refraction of an upper layer formed on the specimen (Col. 5, lines 35-43).

**Claim 5**

The reference of Batchelder et al. ('648) further discloses the liquid (Fig. 3, Ref. 214) occupies approximately an entire volume between the surfaces of the optical component 9 (Fig. 3, Ref. 312) and the specimen (Fig. 3, Ref. 110).

**Claim 6**

Batchelder et al. ('648) further discloses the liquid occupies spaces between features on the specimen (Col. 17, lines 50-55).

**Claim 7**

The reference of Batchelder et al. ('648) further discloses air is not present between the surfaces of the optical component (fig. 3, Ref. 312) and the specimen (Fig. 3, Ref. 110).

**Claim 8**

Batchelder et al. ('648) further discloses the liquid does not scatter the light (Col. 6, lines 29-36).

**Claim 11**

Batchelder et al. ('648) further discloses the liquid comprises a wetting agent (Col. 6, lines 17-18).

**Claim 13**

Batchelder et al. ('648) further discloses the inspection or review comprises bright field inspection or review, dark field inspection or review, or dark field and bright field inspection or review (Col. 10, lines 21-27).

**Claim 14**

The reference of Batchelder et al. ('648) further discloses the system is configured as a confocal optical system (Col. 9, lines 29-31).

**Claim 15**

Batchelder et al. ('648) further discloses the system is configured to scan the specimen while the liquid is disposed between the surfaces of the optical component and the specimen (See Fig. 3).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-11, 12, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batchelder et al. ('648).

**Claim 9**

Batchelder et al. ('648) discloses the claimed invention except for the liquid is water. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Batchelder et al. ('648) with the liquid of water since it was well known in the art that water is a conductor of refractive index and a renewable resource, therefore reducing the costs of the use of the liquid.

**Claim 12**

Batchelder et al. ('648) discloses the claimed invention except for removing the liquid from the surface of the specimen. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Batchelder et al. ('648) with the removal of the liquid from the surface since it was well known in the art that removing the liquid from the surface improves the quality of the surface before it is given to the end user, therefore producing a finished produce.

**Claims 17-19**

Batchelder et al. ('648) an inspection or review subsystem configured to project light through an optical component (Fig. 3, Ref. 312), a liquid (Fig. 3, Ref. 214), and onto a specimen (Fig. 3, Ref. 110), wherein the liquid contacts the optical component (Fig. 3, Ref. 312) and the specimen (Fig. 3, Ref. 110), and wherein the specimen is a wafer.

Batchelder et al. ('648) discloses the claimed invention except for removing the liquid from the surface of the specimen, or clean the specimen. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Batchelder et al. ('648) with the removal of the liquid or cleaning from the surface since it was well known in the art that removing the liquid from the surface or cleaning improves the quality of the surface before it is given to the end user, therefore producing a finished produce.

**Claim 20**

Batchelder et al. ('648) discloses the claimed invention except for a handler is used to transfer the specimen from the inspection to the processing subsystem. It would have been

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obvious to one having ordinary skill in the art at the time the invention was made to combine Batchelder et al. ('648) with handler since it was well known in the art that using a handler increases the speed of repeat movements, therefore increasing the amount of product that can be put through the manufacturing process.

*Allowable Subject Matter*

5. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Michael P. Stafira



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Primary Examiner  
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October 14, 2005